

## TRANSMITTAL FORM FOR FILING PATENT APPLICATION

Attorney Docket No.: VER-110AX

WEINGARTEN, SCHURGIN, GAGNEBIN &amp; HAYES LLP

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Boston, Massachusetts 02109

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Express Mail No: EL634678945US

Date: January 17, 2001

First Named Inventor or Application  
Identifier: John Wilhelm Geus

BOX PATENT APPLICATION

Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

Transmitted herewith under 37 CFR § 1.53 for filing is the patent application of:

Inventor: John Wilhelm Geus, Robert Johan Andreas Maria Terörde

Entitled: CATALYST FOR THE SELECTIVE OXIDATION OF SULFUR COMPOUNDS TO ELEMENTAL  
SULFUR, METHOD FOR THE PREPARATION OF SUCH A CATALYST, AND METHOD FOR THE  
SELECTIVE OXIDATION OF SULFUR COMPOUNDS TO ELEMENTAL SULFUR

[X] This is a request for filing a [X] **continuation** [ ] **divisional**  
 [ ] **continuation in-part** application under §1.53(b) of prior Application  
 No.: 09/142,309, filed December 7, 1998, entitled: CATALYST AND METHOD FOR  
 THE SELECTIVE OXIDATION OF SULFUR COMPOUNDS TO ELEMENTAL SULFUR

Enclosed are:

- [X] 20 pages of written description, claims and Abstract, inclusive
- [X] 3 sheets of [ ] informal [X] formal drawings of Figs. 1-5 (one set)
- [X] Oath or Declaration  
 [ ] Newly executed (original or copy)  
 [X] Copy from prior application (37 CFR 1.63(d)) (for  
 continuation/divisional). The entire disclosure of the prior  
 application, from which a copy of the oath or declaration is supplied,  
 is considered as being part of the disclosure of the accompanying  
 application and is hereby incorporated by reference therein.
- [ ] To be filed later

[ ] Cover sheet and Assignment of the invention to:

[ ] Certified copy of a \_\_\_\_\_ application (if foreign priority  
is claimed) with letter claiming priority under Rule 55.

[ ] Information Disclosure Statement with \_\_\_ citations

[X] Preliminary amendment is enclosed.

[X] Return receipt postcard

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**TRANSMITTAL FORM FOR FILING PATENT APPLICATION (CONTINUED)**

- [X] Other: Letter to Chief Draftsman with corrections
- [x] Priority is claimed under 35 USC § 120 as indicated on the attached sheet 4.
- [X] Priority is claimed under 35 USC §119(a)-(d) as indicated on the attached sheet 4.
- [ ] Priority is claimed under 35 USC §119 (e) as indicated on the attached sheet 4.
- [X] Gwendolyn H. Yip is hereby appointed Associate Attorney by:  
Registration No.:40,448

Holliday C. Heine  
Attorney of Record Holliday C. Heine, Ph.D.  
Registration No.:34,346

- [ ] Power of Attorney in the originally-filed application has been granted to one or more of the registered attorneys listed below. The attorneys listed below not previously granted power in the originally-filed application, as well as \_\_\_\_\_, are hereby given associate power:  
Registration No.:

Stanley M. Schurgin, Reg. No. 20,979  
Charles L. Gagnebin III, Reg. No. 25,467  
Paul J. Hayes, Reg. No. 28,307  
Victor B. Lebovici, Reg. No. 30,864

Eugene A. Feher, Reg. No. 33,171  
Beverly E. Hjorth, Reg. No. 32,033  
Holliday C. Heine, Reg. No. 34,346  
Gordon R. Moriarty, Reg. No. 38,973  
James F. Thompson, Reg. No. 36,699  
Gwendolyn H. Yip, Reg. No. 40,448

- [X] Cancel in this application original claims 2-14 of the prior application before calculating the filing fee.
- [ ] Add in this application claims \_\_\_\_\_ per amendment before calculating fee.

CLAIMS FILED:	MINUS BASE:	EXTRA CLAIMS:	RATE:	BASIC FEE:
				\$710.00
Independent	1 - 3	= 0	x \$80.00 =	\$0.00
Total	1 - 20	= 0	x \$18.00 =	\$0.00
[ ] Multiple Dependent Claims (1st presentation)			+ \$270.00 =	\$0.00
SUBTOTAL FILING FEE				\$710.00
Small Entity filing, divide by 2. (Small Entity status must be asserted.)				\$0.00
TOTAL FILING FEE				\$710.00

Attorney Docket No.: VER-110AX


**TRANSMITTAL FOR FILING PATENT APPLICATION (CONTINUED)**

- ☒ [X] The filing fee has been calculated above; a check in the amount of \$710.00 is enclosed.
- ☐ [ ] The filing fee will be submitted at a later date.
- ☒ [X] In the event a Petition for Extension of Time under 37 CFR §1.17 is required by this paper and not otherwise provided, such Petition is hereby made and authorization is provided herewith to charge Deposit Account No. 23-0804 for the cost of such extension.
- ☒ [X] The Commissioner is hereby authorized to charge payment of any additional filing fees under 37 CFR §1.16 associated with this communication or credit any overpayment to Deposit Account No. 23-0804.

**[X] Customer Number 207**

Address all future communications to:

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\_\_\_\_\_  
Attorney of Record: Gwendolyn H. Yip  
Registration No. 40,448

Attorney Docket No.: VER-110AX

**TRANSMITTAL FOR FILING PATENT APPLICATION (CONTINUED)**

[X] Priority is claimed under 35 USC § 120 of prior Application(s)

No. 09/142,309, filed December 7, 1998, entitled: CATALYST FOR THE SELECTIVE OXIDATION OF SULFUR COMPOUNDS TO ELEMENTAL SULFUR, METHOD FOR THE PREPARATION OF SUCH A CATALYST, AND METHOD FOR THE SELECTIVE OXIDATION OF SULFUR COMPOUNDS TO ELEMENTAL SULFUR

[X] The above-identified application(s) is/are assigned of record to: GASTEC N.V. and STORK ENGINEERS & CONTRACTORS B.V.

[X] Priority is claimed under 35 USC § 119 (a)-(d) of the following application(s).

<u>1002524</u> (Application Number)	<u>The Netherlands</u> (Country)	<u>4 March 1996</u> (Filing Date)
<u>PCT/NL97/ 00108</u> (Application Number)	<u>WIPO/PCT</u> (Country)	<u>4 March 1997</u> (Filing Date)
_____ (Application Number)	_____ (Country)	_____ (Filing Date)

[ ] The above-identified application(s) is/are assigned of record to:

[ ] Priority is claimed under 35 USC § 119 (e) of the following provisional application(s).

_____ (Application Number)	_____ (Filing Date)
_____ (Application Number)	_____ (Filing Date)
_____ (Application Number)	_____ (Filing Date)

[ ] The above-identified provisional application(s) is/are assigned of record to:

SUBMIT IN TRIPLICATE

GHY/kdm  
241763

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application : John Wilhelm Geus, et al.  
Filed : Herewith  
For : CATALYST AND METHOD FOR THE SELECTIVE  
OXIDATION OF SULFUR COMPOUNDS TO  
ELEMENTAL SULFUR  
Attorney's Docket : VER-110AX

Group Art Unit: 1754

\* \* \* \* \*  
I hereby certify that this correspondence is being deposited with  
the United States Postal Service as first class mail in an  
envelope addressed to: BOX PATENT APPLICATION, Commissioner for  
Patents, Washington, D.C. 20231, on \_\_\_\_\_.

By: \_\_\_\_\_  
Gwendolyn H. Yip  
Registration No. 40,448  
Attorney for Applicant(s)

\* \* \* \* \*  
LETTER TO CHIEF DRAFTSMAN WITH  
PROPOSED CORRECTED DRAWINGS

BOX PATENT APPLICATION  
Commissioner for Patents  
Washington, D.C. 20231

Sir:

Enclosed are proposed, corrected drawings for the above-identified application. (The formal drawings appended to the specification correspond to the proposed, corrected drawings.) The proposed drawings include corrections or clarifications to Figs. 2, 3 and 4, and are identical to the corrections made in the parent application, Application No. 09/142,309, from which priority is claimed for the present application..

Specifically, the proposed drawings renumber Fig. 2 as Fig. 2A and Fig. 2B, Fig. 4 as Fig. 4A and 4B. They also include

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typographical corrections or clarifications to Figs. 3 and 4, in accordance with the Examiner's request during prosecution of the parent application. In the parent application, the Examiner objected to the 'formulas' "Fe(5)Zn(10)Si-Cl" and "Fe(5)Zn(10)Si" used to designate the mixed oxide iron-zinc catalysts whose data are presented in Figs. 3 and 4. The parenthetical number appearing after 'Fe' is the weight percentage of iron in the final catalyst, calculated as  $\text{Fe}_2\text{O}_3$ . The number appearing after 'Zn' indicates the weight percentage of zinc in the catalyst, calculated as  $\text{ZnO}$ . 'Si' indicates that a silicate support has been used in the catalyst. The number appearing after 'Cl' indicates the amount of chlorine that was used in the reaction mixture during the preparation of the given catalyst. Accordingly, the atomically mixed oxide catalyst whose Mossbauer spectrum is shown as "c" in Fig. 3, and whose conversion performance is depicted in Fig. 4A, contains 5 wt.% of  $\text{Fe}_2\text{O}_3$  and 10 wt.%  $\text{ZnO}$ , on a silicate support, and was prepared using 2 wt.% chloride. The catalyst whose spectrum is shown as "d" in Fig. 3, and whose conversion performance is depicted in Fig. 4B, contains the same amounts of  $\text{Fe}_2\text{O}_3$  and  $\text{ZnO}$  on a silicate support, but was prepared *without* chloride. Language has been added after each of the objected-to formulas in Figs. 3 and 4, to clarify each catalyst's respective composition.

In Figure 4A, the typographically erroneous language " $\text{Fe}_7\text{Zn}$  catalyst" has been corrected to recite, instead, "Fe/Zn catalyst".

No new matter has been added by these corrections, since support for the corrections can be found at least at page 14, lines 14-30, page 15, lines 32-37, page 16, lines 1-2, and page 17, lines 4-11, taken together with the original drawings. It is respectfully submitted that one of ordinary skill in the art of the invention would have understood what is meant by the

'Fe(x)Zn(y)Si-Cl(z)' format used in the drawings, in light of the specification, at the time of the claimed priority date.

Therefore, Applicants request entry of the proposed corrections and clarifications, as being appropriate.

The Chief Draftsman is invited to contact the undersigned attorney, should there be any question regarding this matter.

Respectfully submitted,

JOHN WILHELM GEUS ET AL.

By: Gwendolyn H. Yip  
Gwendolyn H. Yip  
Registration No. 40,448  
Attorney for Applicant(s)

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Dated: January 17, 2001

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